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THE PLOTTER

CLACKAMAS COUNTY AREA T/S
USERS GROUP
NEWS LETTER

VOLUME 5 ** NUMBER 10

OCTOBER 1987

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MEETING

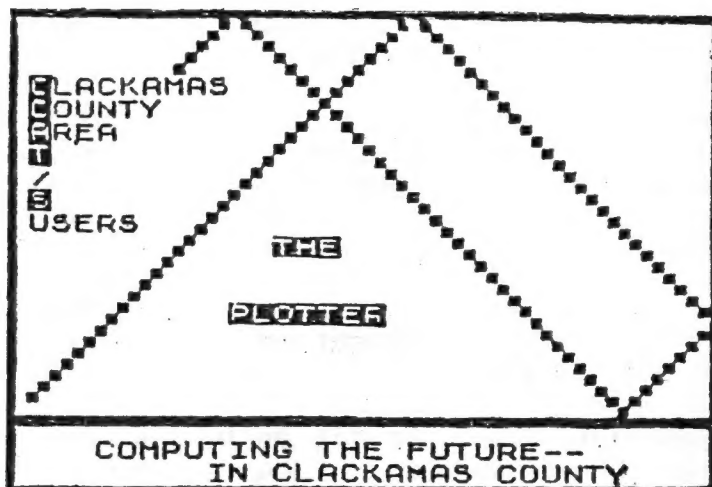
The OCTOBER meeting will be:

on: FRI., OCTOBER 9, 1987

at: 7:30 P.M.
in: COMMUNITY ROOM
FAR WEST FEDERAL S & L
OREGON CITY SHOPPING CENTER

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Chairman's Corner

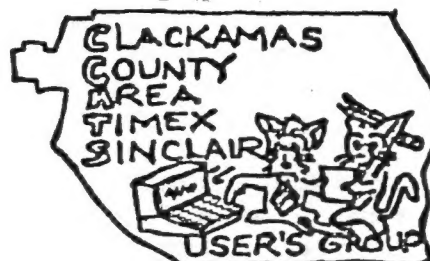
I am writing this in anticipation of the 2nd annual Time Designs picnic, which has become the 1st annual Northwest Minifair. It also has an additional sponsor in RMG Enterprises. Sounds like so much fun, I can't wait for the reruns next meeting!

Also at the next meeting, Dwayne Hewitt will demonstrate his inexpensive RGB interface. This may be your last chance to see it.

There is some difficulty locating a knowledgeable service facility for our computers. In case you do not know, Timex will no longer service them. If you know anyone who is willing and able to provide service, let us know.

The november meeting is the time for nomination of next year's club officers. Remember, you need not be present to win!

Syd



SECRETARY'S SECRETS

by Jack Armstrong

The meeting was called to order at 7:45 by chairman Syd Wyncoop. He asked Rod for a report on membership and was informed that we have 30 members, of which several are not nearby residents. Some have joined us to have the Plotter come every month keeping them informed. Dennis reported on an ad he saw about a computer show/sale of one day at the Expo Center. It is put on by Golden Gate Shows. There are demos, dealers and wholesalers. Most brands of computers are represented. D. Lewis informed us of the NorthCon show at the coliseum. This con was at Seattle last year. Tim gave a report on the transportation arrangements and stated that he had inquiries from 52 persons and that Rod had a list also. He estimated that there would be at least 150 from three clubs and that some people were coming from other states. The event will be held at Seattle's Masonic Temple. There was a lively discussion over the arrangements and after a time this writer was called on to give a demo on the Zebra Talker. Unfortunately the wafers with the programs were left at home. Syd and Rod came up with hardware and software to use and after some hurried effort a demo was presented. Syd had used the Code and programmed speech into a Loader Program using the AERCO 1F and the general uses of the Talker were discussed. A demo at a later date with the two programs: The Old Shell Game and a Slot Machine Game will be presented. This writer wants to apologize to all for not bringing all the equipment necessary to give the demonstration completely. There was a general discussion of the Talker and Speech Generation and Speech Recognition uses were brought out. It was noted that three or four members had a speech generation program. The discussion became more generalized and different subjects came into focus. Rod's wife, Mary took a survey of all those wishing to go for food after the meeting and made reservations for us. We enjoyed immediate seating after the meeting was adjourned at 9:10 p.m.

FROM THE EDITOR'S DESK

At this writing we will have to wait for reports of the success of the mini-computer fest in Seattle.

I do think CCATS members are participating to their limit for which thanks are due to all. It is time consuming as it takes many hours of planning, communicating, and participating. Rod Gowen and Tim Woods have made many contacts to put together such a show.

Bill Dunlop has provided a bus so members can attend at a minimum expense. RMG Enterprises is having a multi-table display and sales table. Time Designs magazine is having a sales table for magazine and books.

CCATS user group is taking a table to spread the word about our group and possibly acquire a few long distance members. There will be a printed (large printer) banner with our name and location behind the sales table if there is wall space. The group voted to have 100 copies of our newsletter available at no cost. A monitor display of a horizontally scrolling message will continuously give information about our organization and members participating in the program. A good use for the old TS 1000 computer and cassette player. Will Dennis Juries be providing his interesting explanation of integrated circuit chip manufacture?

Future reports will no doubt present the success of this undertaking and possibly encourage other areas to develop a series of meetings. It is understood that San Francisco may be a major west coast effort.

Have you read the new column Rod Gowen will be writing? Thru such explanation of the Larken Disk Operating System (LKDOS) readers who have this system will be able to enjoy improved use of it. Readers who do not now have a DOS will be able to evaluate all systems from the knowledge gained from this series.

A DOS can become more than just a new way to SAVE and LOAD. Consider programs that use these systems as an operating memory bank to be drawn

Continued on page 4

CIRCUIT BOARD DESIGNER

A Review by Dick Wagner

RMG Enterprises has received a "test" sample of a circuit board designer, a kind of a CAD (Computer Aided Design) program. The big computers have had CAD available for some years so this one is very welcome to the 2068 stable.

A circuit board (electronic) is used to hold components soldered to suitable pads and traces formed by etching a copper layer(s) affixed to a thin insulator. Many components are industry standardized so hole size, pad placement and size, trace width, and spacing of pins becomes possible.

PC-Draw by M.D.M. Enterprises is a TS 2068 specific program that uses 2 menus at the screen bottom and a standard switch type joystick (left port). A joystick is required as arrow shift keys will not work.

The final product as displayed on the screen is ultimately printed on an Epson printer (or compatible type) in the hi-resolution graphic mode, exactly 2X size in both directions. The program prints out in equal x and y format. Thus a 80 column printer has a maximum of 8 inches width and length can be 20 inches maximum. This reduces to a 4X10 image size when photographed for the transparency. This transparency is used with a photo sensitive PC board to prepare it for etching.

The program (mc) produces movable cross hairs on the screen. This is moved about by the joystick. Various useful selectable pads can be "set" at the cursor position by using the "fire" button. An indicator displays the cross hair position in whole numbers and in .5.

The draw mode permits a 3 pixel wide line to be "set" between any 2 positions where the "fire" button is used. The line will automatically draw between points, using a 45 degree angle if points are not exactly horizontal or vertical. Yes,

it goes thru any image in the way so it may be necessary to compose the line in steps. It is possible to draw also with a one pixel wide line but this method works differently.

There are many other features built into this program that I can't cover in this space. Maybe a demonstration at a future meeting?

This system just about requires a layout first on 10X10 graph paper so components can be located on a 1/10 inch basis. I found that a table of pad locations helped to set them on the screen. Then connecting lines were drawn as per the sketch. The numbering system follows the screen system. Several different methods are available to correct and to delete parts of the image.

An interesting feature is the ability to "set" the pads for a dip IC or socket. Just tell the screen if it is a double row or single row, the direction to print relative to pin 1, and the number of pads. Press the "fire" button and there they are! If you need a few narrow pads just make the substitution later. For fingers just make the selection of direction and "set" them as required.

Double sided PC boards are worked out by using locator pads at each corner. Just tell the screen to "set" sip 2 by direction and spacing from the cross hairs, "fire" and there they are. The cross hairs move rapidly across and down until you get to the edge and then it moves quite slowly, almost like a bounce.

The BASIC program provides for date, printer IF selection, and program copy. The menu provides for data saves. Being BASIC the user can tailor it for the system in use, disk, wafer, or cassette.

No provision is provided for any other type of printer, such as by a series of pokes. I tried a screen dump with the Olivetti printer to get an image but it was far out of scale plus everything on the screen printed. Definitely one must use the built in "print" command to make things right.

Documentation is very good with easy to follow instructions. A

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on at will. Screen displays (menus, etc) need not consume RAM space, as an example. The new newsletter published by Gulf Micro Electronics (available in October) will cover this feature in detail and the information will be readily converted to systems other than Oliger.

Rod can produce a very meaningful column but he will need input to do it. Each system needs a "champion" and he will be it. It looks like current favorite systems are Aerco, Oliger and Larken and the independent Aerco NL has fallen by the wayside. Along with these there are at least 2 combination DOS operations, Larken with a cartridge EPROM that uses no RAM, and the Cuyahoga Valley Software software SPDOS that uses the Abbeydale system also. Both of these work with the Oliger IF.

SPDOS, Oliger version, consumes about 8K of RAM to store the DOS once it is loaded by a boot program (BASIC). While both the Larken and SPDOS are based on Abbeydale Designers Ltd. (English) software they are different in their commands to some extent. They cannot talk to each other, at least I haven't had success. Also, I haven't been completely successful in switching back and forth between Oliger SAFE DOS and Larken LKDOS. Probably a conflict in RAM. Perhaps some of these oddities can be persued in Rod's column.

I would like to suggest that Rod's discussions always include all of the Larken hardware types available (DOS). Thus differences would help us all. I suspect that the cartridge system does not include all of the commands available to the regular Larken IF. In comparison with Oliger and SPDOS (Cuyahoga), Larken is sadly deficient in documentation based on my cartridge documentation.

PIE CHART PROGRAM

The Editor

This program will make up to and including 18 slices. It also displays a slice number, the value you input and the % of the whole.

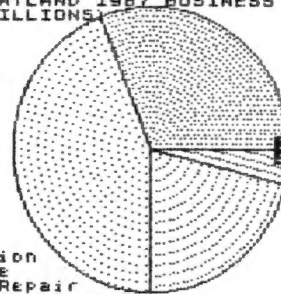
From TIMELINEZ, Fred Templeton

```
1 RUN 400: REM for pie chart
with up to 18 pieces of pie
240 FOR r=1 TO ra STEP RND*6+.7
: FOR p=as TO ae STEP d*(40/r):
PLOT r*COS p+xc,r*SIN p+yc: NEXT
p: NEXT r: RETURN
399 REM add a ''' for N$ for ea
ch name line over 1. Normal is 2
for 1 line.
400 INPUT 'PIE CHART NAME? ':N$
: CLS : PRINT N$''''# val rX':
INPUT 'how many divisions? ':di
v
401 LET total=0: DIM d(div)
402 FOR a=1 TO div: INPUT 'ente
r value for division #':(a);' ':
d(a): LET total=total+d(a): PRIN
T a;TAB 3;d(a): NEXT a
1100 LET xc=168: LET yc=88: LET
ra=87: CIRCLE xc,yc,ra
1200 LET ang=0: FOR s=1 TO div
1400 PRINT AT s+2,8;INT (d(s)/to
tal*100+.5)
2050 LET d=(RND*6+.7)*.01745
2200 LET as=ang*.01745
2210 PLOT xc,yc: DRAW ra*COS as,
ra*SIN as
2222 LET ang=ang+d(s)/total*360
2300 LET ae=ang*.01745
2400 GO SUB 240
2440 NEXT s
3000 PRINT TAB 2;'-____-': PRINT
TAB 2;total;AT 10,30; INVERSE 1;
1;AT 11,30;div
3100 REM add necessary LPRINTs t
o describe item #s within space.
3333 STOP
9999 SAVE 'piechart'
```

PORT OF PORTLAND 1987 BUSINESS
(MILLIONS)

#	val	r%
1	31	31
2	44	44
3	21	21
4	4	4

100



#1=Aviation
#2=Marine
#3=Ship Repair
#4=Planning/Real Estate

NOTICE

Besides that interesting color monitor retrofit to the 2068, Duane Hewett will talk on the combining of computer and amateur radio (HAM) into a very interesting hobby. ** TS 2068 repairs-- see the Sept/Oct issue of T-D magazine.

LARKEN LINES

by: ROD GOWEN

Since this is the first in what is hoped will become a regular series of columns, I will start out by being perfectly blunt: **IF I FAIL TO GET ENOUGH INPUT (TIPS, HINTS AND IDEAS FOR COLUMNS) FROM YOU, THE READERS, IT WILL CEASE AS QUICKLY AS IT IS BEGINNING!** I do not have the time to come up with ALL the material needed to do justice to a column of this type.

I decided to start this column based on the fact that there are now more people using LARKEN DOS in our group than any other DOS. I feel that, as the local dealer for this quality disk system, that it is part of my responsibility to try to help the new (and older) users get the most from their systems. Therefore: *LARKEN LINES!*

I think that I will start out by reviewing the basics of the system and how to get started.

Your new LARKEN DOS has arrived! NOW WHAT!!! FIRST!-and MOST IMPORTANTLY--READ THE DOCS!!! When that has been done, hook up the system. The Controller board **MUST BE FIRST BEHIND THE COMPUTER!** Then you may add any other peripherals that you might have. LARKEN DOS is compatible with the A&J system, so if you are now using that system, you may put the A&J I/F directly behind the LARKEN board. This allows you to use the A&J printer I/F as well as use the A&J wafers as a BACKUP system for storage. **WHAT WAS THAT WORD? B A C K U P !** That is perhaps the MOST IMPORTANT WORD that you will ever see in reference to computers! After you have worked for 2, 3 or even more hours entering data or writing a program and the only copy that you made refuses to LOAD, you will learn the true value of that word!

NOW! Your system is set up and ready to use. The most important difference between LARKEN DOS and cassette LOADING and SAVEing is the addition of "PRINT #4:" in front of all SAVE and LOAD commands. The LARKEN DOS will NOT accept this command format UNTIL you have opened the channel to the disk drives. You must do this each time you turn on the computer or do a NEW. To open the channel, you must enter the following command: RANDOMIZE USR 100: OPEN#4,"dd" Once that line has been entered, you may use the "PRINT #4:" and the computer will recognize it. Now you are really ready to transfer your cassette or microdrive programs and files to disk. I am going to tell you how to change PROFILE +5 in this column, but I would be happy to help the readers with any program that may be a problem. Just write or call and I will try to put it into a future column. Phone: 503/655-7484 or write to the address on the back of the newsletter.

CHANGES TO PROFILE +5

There are only 4 lines to change in this program to set it up for use with the Larken system. Those lines are: 5504, 9990 and 9991. Those lines should be changed to read as below:

```
5507 LET P=P-U: PRINT #4: LOAD F
$+ ".CP"CODE PEEK VAL "23627"+R*P
EEK VAL "23628"+P+G-U: LET F$=D$
(P+H TO P+G+ R): LET P=P+VAL D$(
P+K+H TO P+J+U): BEEP U/H,J+J: G
O TO U
```

```
8205 LET D$(H TO G+F)=F$: LET D$
(K+F TO J+U)=STR$ P: PRINT #4: S
AVE F$+ ".CP"CODE PEEK VAL "23627
"+R*PEEK VAL "23628"+G-U,P
```

```
9990 CLEAR: PRINT #4: SAVE "PF5.
BP"LINE VAL "9991": BEEP VAL ".T
",VAL "30": PRINT #4: SAVE "P/F.
CP"CODE VAL "63488",VAL "2046":
BEEP VAL ".5",VAL "30": GO TO VA
L "9996"
```

```

9991 RANDOMIZE USR VAL "100": OP
EN#4,"dd": BORDER NOT PI: PAPER
NOT PI: INK VAL "7": CLEAR VAL "
63487" PRINT #4: LOAD "P/F.CP"CO
DE: CLS : POKE VAL "23658",VAL "
8"

```

The first command in LINE 9991 sets up the computer to accept the "PRINT #4:" command so that you will not need to enter "RANDOMIZE USR 100:" in front of each LOAD or SAVE command as well as the Larken EXTENDED BASIC commands. This line should be installed in each program that you use that needs to SAVE or LOAD data or files. Each time you do a "NEW" or turn on the 2068, you will need this command. That is why I give all of my customers a copy of a BOOT or AUTORUN or AUTOSTART directory program on the DOS disk with the system they buy from me.

Those are the ONLY changes that you HAVE to make to the program, but you can make others to dress up the program to your taste. I am going to give you only 1 more change to the program, one that will give you a CATALOG or DIRECTORY function to your PROFILE +5.

To set up a CATALOG function, the first step is to LIST the program and bring down LINE 110 to EDIT and change the LINE # to 111 and re-enter it. Now, add a new LINE 110 as follows:

```
110 IF X$="C" THEN GO TO 4500
```

Then you must add a couple of new commands at LINE 4500 as follows:

```

4500 CLS: PRINT #4: CAT "",: INP
UT "DO YOU WISH TO LOAD A FILE?
";W$: IF W$<>"Y" OR W$<>"y" THEN
GO TO U

```

```
4510 GO TO 8200
```

Now you must change the menu to reflect the fact that you can do a CATALOG from it. I found that because I never turn off the "TICK", I decided to replace the "T>ick on/off" selection with the "C>atalog disk" selection. This

does not mean that you cannot turn off the TICK, but just that the selection is no longer visible at the menu. Now, when you make the "C" selection from the main menu, you will see exactly what is on the disk in drive 0. If you would like to see ONLY the PROFILE files that are on the disk, you can do a selective CATALOG by changing the CAT "", in LINE 4500 to read: CAT ".CP",. This presupposes that you will not use the extension ".CP" for any other files.

Well, that should do it for PROFILE +5! I hope that I have helped is a small way to get you going with your new disk system. As I said before, if you are having trouble setting up a program to operate on your Larken system, feel free to write or call and I will do my best to do a column on it in the near future.

Until next time: Thanks for reading and I will be back.

COMPUTER FAIR

The Editor

The great Northwest Computer Fair has come and gone. This will probably be the first published report (abbreviated). Thanks to Bill Dunlop's generosity, 14 people had a bus ride to Seattle with seating ranging from the old Tri Met seats to davenos and recliner chairs. THE FAIR--about 100 people registered and I saw one man from Vermont, as I recall. Just happened to be in town. The 4 user groups participating each had a 3-table booth. SEATUG, the Seattle group was the most active with continuing computer programs running and heavy member participation. They had a prime location that helped to 'cement' activities. The Vancouver Sinclair User Group at their booth provided back issues of their newsletter, ZXAPPEL. A great way to clean out their old stock. We were next with

Continued Page 7

5 REM This is an updated version of Dick Wagners PRINTUSING routine showing a demo of how it will change your input and print it out in an orderly fashion for a neat appearance. It shows how ordinary input prints, then will print the same material in formatted fashion. Revisions are by Jack Armstrong, 8-87.

6 REM
10 INK 0: PAPER 6: BORDER 5: C
LS

20 PRINT " THIS PROGRAM WILL
INTAKE YOUR NUMBERS AND PRINT
THEM OUT IN A "PRINTUSING" F
ORMAT EVEN IF THEY HAVE NO LEA
DING DIGIT AND EVEN IF THEY HAV
E NO DECIMAL; IT WILL HANDLE N
UMBERS UP TO 9 CHARACTERS LONG
(INCLUDING THE DECIMAL POINT.)"

30 PRINT INK 1; " PRESS A KEY
TO START...": PAUSE 0: CLS

40 PRINT "How many numbers wi
ll we use?": INPUT many: PRINT
INK 2; many; " numbers"

50 PRINT "How long is the lon
gest number? (long=total charact
ers including the decimal point i
f it has one)": INPUT long: PRIN
T INK 2; "Longest #:"; long

60 POKE 23658,8: INPUT "Clear
the screen? Y/N "; LINE z\$: IF z
\$="Y" THEN CLS

70 LET tot=0: DIM m(many): LET
i\$="#####.##"

80 FOR l=1 TO many
90 INPUT "INPUT #"; l; " of "; m
any); " "; m(l)

100 LET tot=tot+m(l): NEXT l
110 PRINT "

120 FOR l=1 TO many
130 PRINT INK 2; m(l); TAB 3+long

; "Old format" AND l=1)
140 NEXT l

150 PRINT "
160 FOR l=1 TO many

170 LET xi=m(l)
180 GO SUB 2000

190 PRINT INK 1; x\$; TAB 3+long; (
"PrintUsing format" AND l=1)

200 NEXT l
210 PRINT "-----": PRINT IN

K 1; TAB 9-long; tot
300 STOP

2000 REM
2010 LET il=LEN i\$
2020 LET id=0

2030 FOR j=1 TO il
2040 LET j\$=i\$(j)

2050 IF j\$=CHR\$ 46 THEN LET id=L
EN i\$-j

2060 NEXT j
2070 LET x\$=STR\$ INT (ABS xi*10^{id}

id)

2080 LET xd=LEN x\$-id
2090 FOR j=0 TO -xd

2100 LET x\$="0"+x\$
2110 NEXT j

2120 LET xd=LEN x\$-id
2130 IF id>0 THEN LET x\$=x\$(TO

xd)+"."+x\$(xd+1 TO)
2140 FOR j=1 TO il-LEN x\$

2150 LET x\$=CHR\$ 32+x\$
2160 NEXT j

2170 RETURN
3000 SAVE "05,pusing" LINE 10

PRINTXR PROBLXMS

THX old printxr has sprung a
lxak as it sxms to lxt an X or an
x print vxxytimx I want an X or an
X. This makxs it hard gxtting THX
PLOTTXR out this month.

Now if you rxadxrs would just
comx thru with somx of your own
printxd articlxs and programs thxn
this shxxt would look a lot bxttxr.
I guxss I can gxt along with
printing thx front and last pagxs
which most pxoplx don't rxad
anyway.

THX XDITOR

NOTE: This little bit of whimsey was
accomplished with the MSCRIPT word
processor by using the FIND string,
in this case the letter E and then
defining the replacement letter for
the CHANGE string as X. By placing
the cursor at the beginning of the
text the first E is marked and then
the CX command made the change for
all cap E's. Likewise Fe defined the
lower case e and Cx made the
replacement for all such occurances.
Of course the text can be just as
easily corrected back again.

Lets say that you are writing
and have a number to use one or more
times but at the moment the number
is 'in process' and not known for
certain. Just make an unlikely
number substitution and at a later
time use the Find and Change for
every number correction. All such
occurances are corrected at one
time!

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100 copies of our last issue of THE
PLOTTER for hand outs. We dispensed
about 50. My plans for a computer
scrolling display of CCATS
information 'blew up' when my 1000
quit on Friday. The inside corner
booth was manned by the Vashon
Island User Group. This little group
of 5 members provided quick food
dispensing. A fine effort! The far
side of the assembly hall contained
3 commercial booths, Time Designs
magazine, RMG Enterprises, and
Weymill Corporation. Tim and

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XX

sample 2X print of a PC board is shown plus the same board with a numbered grid that can be added for printing as an aid to checking for errors. Obviously the hint to practice first is well illustrated. I copied a simple layout from a magazine after some slips but the methods for correcting errors were used many times. One item of importance that is missing is how to get back to the program after using "quit". From reviewing the listing I tried RANDOMIZE USR 29648 successfully. This program is available from RMG Enterprises and Knighted Computer at \$19.95 plus S & H.

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Stephanie Woods were distributing the hot off the press Sept/Oct issue to subscribers plus selling that and back issues. The full range of books they sell were also available. Rod and

Continued Next Column

Mary Gowen plus 2 active daughters were busy selling the various product lines brought there on the bus. Weymill had Wilf Rigger as demonstrator supreme of his newest TS 1000 add-on Delta device.

SUBSCRIPTION RATES

FREE SUBSCRIPTION WITH PAID
CCAT/S MEMBERSHIP-\$15.00/YR

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TO THE MONTH AD IS TO RUN.

XX -8- XXX

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Oregon City, OR 97045

(place label here)